

Viton® A-100

Fluoroelastomer
DuPont Performance Elastomers

Message:

Viton A-100 fluoroelastomer is an ultralow-viscosity, "A-type" gum polymer that demonstrates improved processing and rheology in comparison with existing fluoroelastomers. Viton A-100 is especially designed for use with Viton Curative #50. It may be blended with other Viton types to enhance flow and processibility.

Compared with other "A-family" dipolymers, Viton A-100 provides:

- Ultralow viscosity
- Improved processing
- increased mold flow
- can be blended with other Viton types to enhance processibility and improve flow
- Excellent mold release
- Good compression set resistance for low-viscosity types of Viton

Applications

- Transfer and injection molding of complex shapes such as gaskets
- Extrusions
- can be used to modify viscosity of other types of Viton
- Solution coating
- fabric
- tanks or chemical containers

General Information			
Features	Low compressive deformability		
	Low viscosity		
	Solvent resistance		
	Workability, good		
	Good liquidity		
	Good demoulding performance		
Uses	Washer		
	Composite		
	Pipe		
	Pipe fittings		
	Coating application		
Appearance	Grey		
Forms	Sheet		
Processing Method	Extrusion		
	Resin transfer molding		
	Coating		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.82	g/cm ³	ASTM D792

Mooney Viscosity (ML 1+10, 121°C)	33	MU	ASTM D1646
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	79		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	3.80	MPa	ASTM D412
Tensile Strength (Break)	8.20	MPa	ASTM D412
Tensile Elongation (Break)	240	%	ASTM D412
Compression Set			
23°C, 70 hr	10	%	ASTM D395B
200°C, 70 hr	21	%	ASTM D395
232°C, 22 hr	23	%	ASTM D395B
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air			ASTM D573
200°C, 70 hr	43	%	ASTM D573
100% strain, 200°C, 70 hr	110	%	ASTM D573
200°C, 168 hr	45	%	ASTM D573
100% strain, 200°C, 168 hr	100	%	ASTM D573
232°C, 24 hr	30	%	ASTM D573
100% strain, 232°C, 24 hr	45	%	ASTM D573
232°C, 70 hr	41	%	ASTM D573
100% strain, 232°C, 70 hr	110	%	ASTM D573
Change in Ultimate Elongation in Air			ASTM D573
200°C, 70 hr	-36	%	ASTM D573
200°C, 168 hr	-35	%	ASTM D573
232°C, 24 hr	-24	%	ASTM D573
232°C, 70 hr	-37	%	ASTM D573
Change in Durometer Hardness in Air			ASTM D573
Support a, 200°C, 70 hr	1.0		ASTM D573
Support a, 200°C, 168 hr	2.0		ASTM D573
Support a, 232°C, 24 hr	4.0		ASTM D573
Support a, 232°C, 70 hr	4.0		ASTM D573
Additional Information			

Mooney Scorch, MS at 121°C, Minimum: 17 in-lbMooney Scorch, MS at 121°C, 2-pt rise: >30 minODR at 177°C, Microdie, 3° Arc, 15 min, ML: 2 in-lbODR at 177°C, Microdie, 3° Arc, 15 min, ts2: 2.7 minODR at 177°C, Microdie, 3° Arc, 15 min, tc90: 4.1 minODR at 177°C, Microdie, 3° Arc, 15 min, Mc90: 83 in-lbODR at 177°C, Microdie, 3° Arc, 15 min, MH: 92 in-lbRosand Capillary Rheometer, 100°C, 1.5 mm Die, L/D=0/1, 12.7 mm/min, 113 s⁻¹: 4.0 MPaRosand Capillary Rheometer, 100°C, 1.5 mm Die, L/D=0/1, 50.8 mm/min, 452 s⁻¹: 6.8 MPaRosand Capillary Rheometer, 100°C, 1.5 mm Die, L/D=0/1, 127 mm/min, 1130 s⁻¹: 9.9 MPaNominal Viscosity, ML 1 + 10, 121°C: 10Polymer Fluorine Content: 66%

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